

TO: Cooperating Agencies

FROM: U.S. Fish & Wildlife Service, Arcata Ca.

SUBJECT: Age composition of the 1992 Klamath River fall chinook
run based on scale sampling program.

A total of 4,826 scales collected from 19 sampling locations were examined to estimate the age composition of the 1992 Klamath River fall chinook run (Table 1). For locations lacking sufficient scale data, sites believed to be appropriate as a surrogate were used. The ages of 159 samples were not determined due to 1) no scales in sample envelope (43%) and 2) scale aberrations (regeneration, resorption, or inconclusive circuli patterns (57%)).

The jack escapement and harvest estimates compiled by CDFG were applied directly for each sample site. The age composition of adults was calculated (with the exception of the Yurok net fishery) by summing the total number by age-class per sample area then multiplied by the escapement and harvest estimates for that area provided by CDFG. Where applicable, weekly harvest estimates for the Yurok net fishery were multiplied by the corresponding weekly age composition of scale samples. Harvest estimates for the Yurok net fishery below the 101 bridge were partitioned based on method ie. set net or dip net. The overall age composition was calculated by summing the weekly estimates for numbers by age class per harvest method and then totaled.

The 1992 Klamath River fall chinook run consisted of 12,963 jacks (33.3%), 7,249 3-year-olds (18.6%), 17,708 4-year-olds (45.5%) and 985 5-year-olds (2.5%) (Table 2 & 3). No 6-year-old chinook were identified from the 1992 scale composition.

Thank you for providing fall chinook scale samples for this project.

Sincerely

John Lang

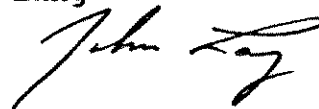


Table 1. Sampling locations and numbers of samples collected for determination of the 1992 Klamath River fall chinook run.

Sampling area	# Samples	JACKS	ADULTS	NOT USED	Agency
Iron Gate Hatchery	720	227	480	13	CDFG
Trinity River Hatchery	244	94	146	4	CDFG
Shasta River Weir	294	29	252	13	CDFG
Bogus Creek Weir	414	151	195	68	CDFG
Willow Creek Weir	318	91	213	14	CDFG
Trinity Carcass Survey	509	94	393	22	CDFG
Scott & Salmon Carcass Survey	508	129	369	10	CDFG
**Grider Creek	11	7	3	1	CDFG
**Indian Creek	7	3	4		USFS
**Indian Creek	22	4	18		CDFG
**Clear Creek	2		2		CDFG
**Dillion Creek	1		1		CDFG
**Elk Creek	4	1	3		CDFG
Klamath Creel Census	793	651	135	7	CDFG
Hoop Net Harvest	118	8	107	3	HOOPA
Yurok Harvest (Estuary)	263	12	250	1	USFWS
Yurok Harvest (Middle Klamath)	187	10	176	1	USFWS
Yurok Harvest (Upper Klamath)	411	26	383	2	USFWS
TOTALS	4828	1537	3130	159	

** Locations without sufficient scale samples. Scott R. and Salmon R. carcass survey and the Salmon R. Weir were used as surrogate for Misc Klamath Tributaries.

Table 2. Age composition of 1992 Klamath River fall chinook run.

	Age					Total	Total Adults
	2	3	4	5			
Hatchery Spawners							
Iron Gate Hatchery	3,733	686	2,737	157	7,313	3,580	
Trinity River Hatchery	229	1,829	1,829	0	3,887	3,658	
Natural Spawners							
Trinity River Basin	2,292	2,049	4,265	233	8,839	6,547	
Salmon River	628	234	656	6	1,524	896	
Scott River	892	211	1,462	16	2,581	1,689	
Shasta River	57	71	411	2	541	484	
Bogus Creek	555	119	444	34	1,152	597	
Misc Klamath Tributaries	431	152	749	6	1,338	907	
TOTAL SPAWNER ESCAPEMENT							
	8,817	5,351	12,553	454	27,175	18,358	
Angler Harvest							
	3,677	834	437	39	4,987	1,310	
Indian Net Harvest							
Klamath River (below HWY 101 Br)	124	132	853	167	1,276	1,152	
Klamath River (above HWY 101 Br)	200	688	2,720	279	3,887	3,687	
Trinity River	42	150	787	9	988	946	
TOTAL IN-RIVER HARVEST							
	4,043	1,804	4,797	494	11,138	7,095	
TOTALS							
In-River Harvest and Escapement	12,860	7,155	17,350	948	38,313	25,453	
Angling Mortality (2% of Harvest)	74	17	9	1	100	26	
Net Mortality (8% of Harvest)	29	78	349	36	492	463	
TOTAL RIVER RUN							
	12,963	7,249	17,708	985	38,905	25,942	

Data derived from jack (age 2) estimates from the "Measurable" and adult age composition data from scale analysis.

Table 3. Age composition (percentages) of 1992 Klamath River fall chinook run.

	Age					Total Adults
	2	3	4	5		
Hatchery Spawners						
Iron Gate Hatchery	51.0%	9.4%	37.4%	2.1%		49.0%
Trinity River Hatchery	5.9%	47.1%	47.1%	0.0%		94.1%
	45.7%	28.5%	40.8%	24%		49.0%
Natural Spawners						
Trinity River Basin	25.9%	23.2%	48.3%	2.6%		74.1%
Salmon River	41.2%	15.4%	43.0%	0.4%		58.8%
Scott River	34.6%	8.2%	56.6%	0.6%		65.4%
Shasta River	10.5%	13.1%	76.0%	0.4%		89.5%
Bogus Creek	48.2%	10.3%	38.5%	3.0%		51.8%
Misc Klamath Tributaries	32.2%	11.4%	56.0%	0.4%		67.8%
	40.2%	7.9%	50.0%	1.9%		69.6%
TOTAL SPAWNER ESCAPEMENT						
	32.4%	19.7%	46.2%	1.7%		67.6%
Angler Harvest						
	73.7%	16.7%	8.8%	0.8%		26.3%
	73.7%	9.7%	8.8%	0.8%		26.3%
Indian Net Harvest						
Klamath River (below HWY 101 Br)	9.7%	10.3%	66.8%	13.1%		90.3%
Klamath River (above HWY 101 Br)	5.1%	17.7%	70.0%	7.2%		94.9%
Trinity River	4.3%	15.2%	79.7%	0.9%		95.7%
	6.0%	9.8%	70.9%	7.4%		94.0%
TOTAL IN-RIVER HARVEST						
	36.3%	16.2%	43.1%	4.4%		63.7%
TOTALS						
In-River Harvest and Escapement	33.6%	18.7%	45.3%	2.5%		66.4%
Angling Mortality (2% of Harvest)	73.7%	16.7%	8.8%	0.8%		26.3%
Net Mortality (8% of Harvest)	6.0%	15.8%	70.9%	7.4%		94.0%
	33.3%	20%	45.5%	2.5%		66.7%

Data derived from jack (age 2) estimates from the "Megatable" and adult age composition data from scale analysis.